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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,686	08/03/2001	Keiji Yano	027650-928	9925

21839 7590 04/21/2003

BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
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DURAND, PAUL R

ART UNIT	PAPER NUMBER
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3721

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DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/830,686	YANO, KEIJI
	Examiner Paul Durand	Art Unit 3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
  - 2a) This action is FINAL.      2b) This action is non-final.
  - 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- Disposition of Claims**
- 4) Claim(s) 9-28 is/are pending in the application.
    - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
  - 5) Claim(s) \_\_\_\_\_ is/are allowed.
  - 6) Claim(s) 9-28 is/are rejected.
  - 7) Claim(s) \_\_\_\_\_ is/are objected to.
  - 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 August 2001 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____.                                   |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9-11,14-17,20-24,27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadler (US 5,231,817) in view of Condo et al (US 3,381,441).

In regard to claims 9,16 and 22, Sadler discloses the invention substantially as claimed including a heat sealing device as part of a vertical form and fill machine, comprised of a operation jaw 30, with a flat surface, facing the seal zone, a counter jaw 31, comprised of a curved surface 56, facing the seal zone, that transversely seals a package 99 filled with a liquid, the seal jaws 30 and 31 being able to collapse the tube and remove the air from the pouch before sealing (see Figs. 1, 2a, 2b, Abstract, C3, L8-27 and C4, L33-35). What Sadler does not disclose is the specific sealing of the package while moving the liquid during sealing. However, However Condo teaches that it is old and well known in the art to provide a sealing machine with means for flatten the tube prior to sealing for the purpose of increasing sealing capability (see C2, L10-18). Therefore, Therefore, it would have been obvious to one having ordinary skill in the art to have modified the invention of Sadler with the flattening means as taught by Condo for the purpose of increasing sealing capability.

Furthermore, in regard to the limitation of the removal of fluid form the seal area, the examiner takes Official Notice that it is old and well known in the art of packaging to provide means to remove the product from the seal area prior to sealing for the purpose of not only improving sealing of the package, but for preventing spoilage of the product due to leakage of air into the product package.

In regard to claims 10, 11, 17, 23 and 24, Sadler discloses the invention as claimed including a counter jaw 30 with a curved surface 56 that is in the form of a chevron

In regard to claims 15 and 28, Sadler discloses the invention as claimed including a resistance body 30 for forming a seal zone (see Figs. 2a, 2b). Furthermore, the Examiner gives little patentable weight to the packaging material being comprised of a metal and thermoplastic layer since the intended use of the device is independent of the material used to package the product.

In regard to claims 14,20 and 27, Sadler discloses the invention substantially as claimed including resistance heating device for sealing members 30. What Sadler does not disclose is ultrasonic heating means for sealing packages. However Condo teaches that it is old and well known in the art to provide a sealing machine with an ultrasonic sealing device 19 with sealing member 20, heated by ultrasonic waves for the purpose of increasing manufacturing efficiency (see Figs. 1,5,8 and C3, L63-68). Therefore, it would have been obvious to one having ordinary skill in the art to have modified the invention of Sadler with the ultrasonic heating means for sealing packages as taught by Condo for the purpose of increasing manufacturing efficiency.

In regard to claims 15 and 27, the Examiner gives little patentable weight to the packaging material being comprised of a metal and thermoplastic layer since the intended use of the device is independent of the material used to package the product.

3. Claims 12, 18, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadler in view of Fukuda (US 5,347,795).

Sadler discloses the invention substantially as claimed including sealing members 30 and 31. What Sadler does not disclose is a sealing member that is comprised of ridge formed at the operation surface. However, Fukuda teaches that it is old and well known in the art to provide transverse sealing members with sealing members 20 that are in the form of discontinued ridges for the purpose of increasing manufacturing efficiency (see Fig. 13). Therefore, it would have been obvious to one having ordinary skill in the art to have modified the invention of Sadler with ridged sealing members as taught by Fukuda for the purpose of increasing manufacturing efficiency.

4. Claims 13, 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadler in view of Konno et al (US 5,787,690).

Sadler discloses the invention substantially as claimed including resistance heating device for sealing members 30. What Sadler does not disclose is inductance heating means for sealing packages. However Konno teaches that it is old and well known in the art to provide a sealing machine with a transverse sealing device 1 with sealing member 35 and 36, heated by inductor 19 for the purpose of increasing manufacturing efficiency (see Figs. 4-7 and C2, L20-29). Therefore, it would have been

obvious to one having ordinary skill in the art to have modified the invention of Sadler with the inductance heating means for sealing packages as taught by Konno for the purpose of increasing manufacturing efficiency.

In regard to claims 13 and 26, the Examiner gives little patentable weight to the packaging material being comprised of a metal and thermoplastic layer since the intended use of the device is independent of the material used to package the product.

### ***Response to Arguments***

5. Applicant's arguments filed 2/12/03 have been fully considered but they are not persuasive.

In regard to claims 9,16 and 22, Applicant argues that the Sadler reference does not disclose the invention of the applicant invention because it provides for the removal of air and not of liquid food. While the examiner does agree that Sadler specifically mention the removal of air. Applicant is referred to Condo et al, Column 2, Lines 10-18. Condo clearly recognizes the relevancy of removing all particulate matter from a seal area prior to initiating a seal for the purpose of forming a correct seal that is stronger than the surrounding package sheet material itself (see Column 13, Lines 45-48).

In regard to claims 14, 20 and 27, Applicant argues that the secondary teaching of Condo does not disclose the invention of the applicant invention because it does not teach of sealing under a liquid surface. The Applicant is referred to the title of the Condo invention which a "System for Producing Liquid Filled Packages". Furthermore, the Applicant is referred to Column 13, Lines 55-60, which clearly defines that any liquid

product of the present invention can be of a multiple of varieties to include liquid food. Still furthermore, the Condo teaching was to show applicant that the use of ultrasonic heating to seal liquid containing packages is well known in the art as is claimed in the claims.

In regard to claims, 13, 19 and 26, Applicant argues that the secondary teaching of Konno does not disclose the invention of the applicant invention because it does not teach of sealing under a liquid surface. However, the teaching of Konno was used to show applicant that it is well known in the art to utilize induction heating to seal liquid containing packages is well known in the art as is claimed in the claims. Furthermore, Konno does discloses on Column 3, Lines 31-63 that it is well known in the art to seal an area of a package while preventing the product in a particular region of the package from re-flowing back into the seal area during the sealing operation to prevent contamination.

In regard to claims 12,18 and 25, Applicant argues that the secondary teaching of Konno does not disclose the invention of the applicant invention because it does not teach of sealing under a liquid surface. While the examiner does agree that the teaching does not pertain to the filling of liquid contents, the teaching of Fukuda was utilized to show the applicant that it is well known in the art to provide the sealing head as that is formed of discontinuous ridges.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Durand whose telephone number is 703-305-4962. The examiner can normally be reached on 0730-1800, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on 703-308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Paul Durand  
April 17, 2003

  
Rinaldi I. Rada  
Supervisory Patent Examiner  
Group 3700